

REMARKS/ARGUMENTS

Re-examination and favorable reconsideration in light of the above amendments and the following comments are respectfully requested.

Claims 12, 15 - 20, 24 - 30, and 44 - 49 are pending in the application. Currently, all claims stand rejected.

By the present amendment, claims 12, 24, 30, 44 and 45 have been amended; claim 29 has been cancelled; and new claims 50 - 54 have been added to the application.

In the office action mailed February 6, 2007, claims 12, 15 - 20, and 44 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,183,197 to Howe; claims 12, 15 - 20, and 44 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,062,463 to Hoffmueller; claims 24 - 28 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,106,104 to Atkinson; claims 24 - 29 and 44 - 49 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,536,773 to Datta; and claims 30 and 48 were rejected under 35 U.S.C. 103(a) as being unpatentable over Datta in view of U.S. Patent No. 5,496,045 to Millener.

The foregoing rejections are traversed by the instant response.

Claim 12 states that the exposed portions are joined together "while in said fixture using a welding machine" so as to form said bristle arrangements. It is submitted that the Howe reference does not teach or suggest such a step. In Howe, the joined ends 10 are placed in a trough 14 containing a liquid binder 15. After the liquid binder is cured, the bound bundles are removed from the placement guide 13 and formed into an arcuate array. The arcuate array is applied to a backing plate and a cover plate is placed on top of the backing plate. The two plates are clamped together and the excess bristles are trimmed off. A weld is then applied to the

plates and to the bristles. Thus, the exposed portions are not in a fixture when they are joined together. In Howe, anything which can be called an exposed portion is long removed from the fixture when the exposed portions are welded.

With respect to the Examiner's comments about Howe on page 2 of the office action, the exposed ends may be clamped with plates and welded; however this clearly does not occur while the tufts are in the fixture. Column 4, lines 3 - 8 does not say that the tufts are in the fixture when the welding occurs. This is because it is clear from column 3, line 53, et seq., that after the liquid binder is cured to form a flexible connector, the bound bundles are *removed* from the placement guide (which is what is being called the fixture) and bent into the desired contour. Howe never says that the welding operation is performed in the fixture.

Claim 12 is further allowable because Howe does not teach or suggest providing a fixture with a shuttle having an annular shuttle and a base and arranging the tufts so that the bristles with the beads extend beyond the base and are placed against the annular shoulder.

Claims 15 - 20 are allowable for the same reasons as claim 12 as well as on their own accord.

As for claim 44, Howe does not teach or suggest the method steps of providing a fixture having a base and a plurality of adjacent guides and arranging a plurality of tufts of bristles in the fixture between adjacent ones of the guides.

With respect to Hoffmueller et al., there is no disclosure of providing a fixture with a shuttle having an annular shuttle and a base and arranging the tufts so that the bristles with the beads extend beyond the base and are placed against the annular shoulder. For this reason, claim 12 is allowable over Hoffmueller et al.

Claims 15 - 20 are allowable for the same reasons that claim 12 is allowable over Hoffmueller et al. as well as on their own accord.

With respect to claim 44, Hoffmueller et al. does not teach or suggest the method steps of providing a fixture having a base and a plurality of adjacent guides and arranging a plurality of tufts of bristles in the fixture between adjacent ones of the guides.

With respect to the rejection of claims 24 - 28 on anticipation grounds over Atkinson, this rejection is now moot in view of the incorporation of the subject matter of claim 29 into claim 24.

With respect to the rejection of claim 24 as being anticipated by Datta, this rejection fails for the following reasons. In making this rejection, the Examiner relies upon Figure 8 of Datta. This figure relates to the fabrication of a brush shroud assembly which includes multiple bristle strips mounted within channels in a housing. There is no fixture. Assuming the housing was the fixture, then Datta could not remove the bristle strips from the fixture as called for in amended claim 24 because the bristle strips are welded or brazed in place. Still further, in applicant's opinion, the various plates and bristles forming one pack are never joined to other packs while in the so-called fixture. In other words, Datta never forms the multiple stages of the brush seal in the manner set forth in claim 24. In particular, there is no simultaneous welding of the stack of discrete plates and discrete bristle arrangements together. For these reasons, claim 24 as amended is allowable over Datta.

Claims 25 - 28 are allowable for the same reasons as claim 24 as well as on their own accord.

Claim 44 is allowable because there is no disclosure in Datta of providing a fixture having a base and a plurality of adjacent guides and arranging the plurality of tufts of bristles in the fixture between adjacent ones of the guides. There is also no

disclosure of spreading the bristles in a uniform fashion around the fixture and welding the bristles together to form a one-piece bristle ring.

Claim 45 is allowable because there is no disclosure in Datta of forming a multiple stage brush seal within a fixture and then removing the brush seal from the fixture after a fusion welding step. As noted above, the bristles welded in place in the embodiment of Figure 8 of Datta are never removed from the housing.

Claims 46 - 49 are allowable for the same reasons as claim 45 as well as on their own accord.

With respect to the rejection of claims 30 and 48 over the combination of data and Millener, the secondary reference to Millener does not cure the aforementioned deficiencies of Datta. Further, there is no reason why one of ordinary skill in the art would want to include the use of a windage cover in Datta given the configuration of the housing.

New claims 50 - 54 are allowable because none of the cited and applied references teach or suggest any of the method claims set forth in these claims. For example, none of the references teaches or suggests: providing the shuttle of claim 51 and placing the beads against the annular shoulder of the shuttle; providing a cover with fasteners and using the fasteners to spread apart the bristles as set forth in claim 52; performing the welding step while the cover is in place of claim 53; and the additional fixture providing step of claim 54.

For the foregoing reasons, the instant application is believed to be in condition for allowance. Such allowance is respectfully solicited.

Should the Examiner believe an additional amendment is needed to place the case in condition for allowance, she is hereby invited

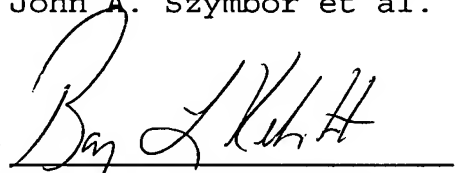
to contact Applicants' attorney at the telephone number listed below.

A one month extension of time request and a check in the amount of \$120.00 are enclosed herewith. Should the Director determine that an additional fee is due, he is hereby authorized to charge said fee to Deposit Account No. 21-0279.

Respectfully submitted,

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By


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I, Karen M. Gill, hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on June 6, 2007.

